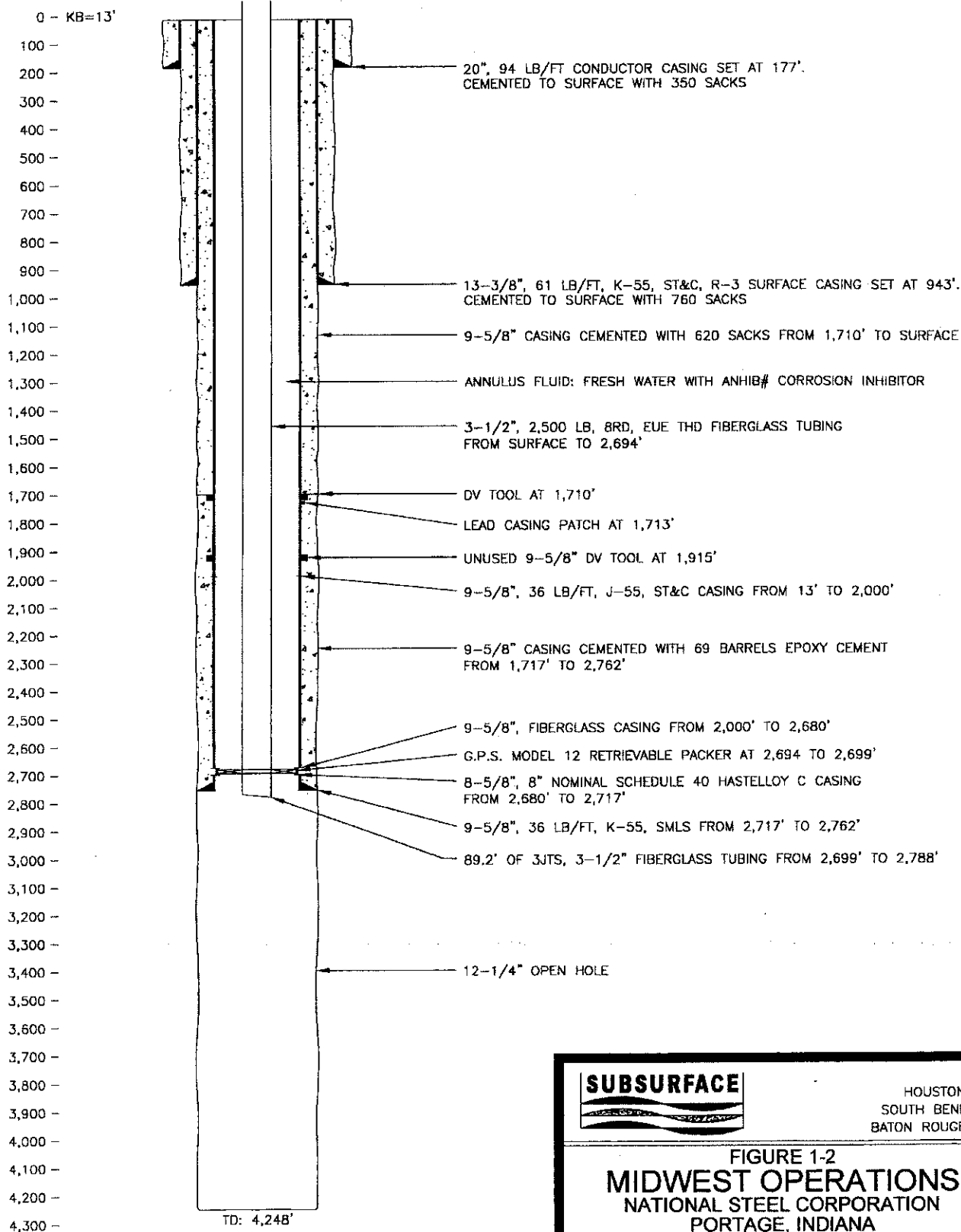


ATTACHMENT D
CONSTRUCTION DETAILS

WASTE PICKLE LIQUOR WELL #2

The well is constructed as follows:

1. Total depth - 4,248 feet below the kelly bushing elevation (KB)
2. Type completion - open hole
3. Conductor Pipe
20" O.D., 94 lb/ft. set at 177' KB, cemented with 350 sacks of Class A cement in 26" hole. Casing cemented to surface.
4. Surface Casing
13-3/8" O.D., Grade K-55, 61 lb/ft. R-3, ST&C casing, set at 943' KB, cemented with 530 sacks of light cement with 1/4 lb. Floccle per sack and 230 sacks of Class A cement in 17-1/2" hole. Casing cemented to surface.
5. Long String Casing
9.5/8" O.D., 36 lb/ft, Grade K-55 casing, set at 2,000' KB; 9-5/8" 2,500 psi, FRP 2,000 to 2,680' KB; 8-5/8" schedule 40 Hastelloy, 2,680 to 2,717' KB; and 9-5/8" 36 lb./ft. SMLS 2,717 to 2,762' KB, cemented with 69 barrels of Epseal, 300 sacks of expanding cement, and 320 sacks of FDP-C735 Superlight cement in a 12-1/4" hole.
7. Tubing
3-1/2" 2,500 psi, 8rd, EUE THD Fiberglass tubing to 2,694' KB.
8. Packer
Groundwater Protection Systems Model 12 packer set at 2,694' - 2,699' KB with tailpipe consisting of 3 joints (89.2') of 3-1/2" fiberglass tubing.
8. Annular Fluid
Fresh water with Anhib corrosion inhibitor.



HOUSTON, TX.
SOUTH BEND, IN.
BATON ROUGE, LA.

FIGURE 1-2
MIDWEST OPERATIONS
NATIONAL STEEL CORPORATION
PORTAGE, INDIANA

DETAILED SCHEMATIC OF WPL-2

DATE: 9/19/01	CHECKED BY: JMS	JOB NO: 60D5287
DRAWN BY: CRB	APPROVED BY: [Signature]	DWG. NO:

NOT TO SCALE

From: Richard Schildhouse [mailto:rschildhouse@subsurfacegroup.com]
Sent: Thursday, August 27, 2009 5:24 PM
To: 'Bates.William@epamail.epa.gov'
Cc: 'Mark Henry'
Subject: Response to 8-24-09 letter

Bill: I have received your correspondence regarding my letter of August 6, 2009 and am responding as follows:

- 1) The ID of the 9-5/8 fiberglass 7.840" Min. Drift 7.750"
- 2) The ID of the Hastelloy 7.98"
- 3) The rationale for putting the epoxy plug at the indicated depth is that at this depth the condition will exist where there will be a hastelloy casing incased in a epoxy seal. If the epoxy plug was put in the open hole there exists a possibility that left over acid could weep between the epoxy plug and the formation.

I have taken into consideration the post closure requirements and will formally respond to them next week. Thanks Rich

THANK YOU

Richard Schildhouse
SUBSURFACE


email: rschildhouse@subsurfacegroup.com



FW: Response to 8-24-09 letter
Richard Schildhouse to: William Bates
Cc: "Mark Henry"

08/31/2009 10:10 AM

Bill: In response to your comment regarding post-closure care, the following are details that I am assuming will fulfill the EPA's requirements, please correct me if I am in error. These actions will need to be taken by US Steel within 90 days of the closure of WPL-2.

- 1) Submit a survey plat to the local zoning authority. The plat shall indicate the location of the injection well relative to permanently surveyed benchmarks. US Steel will determine the proper authority and provide the necessary plat map to that agency. The USEPA, Region V will be provided with verification that this has been done.
- 2) Provide appropriate notification and information to the USEPA, Region V to enable them to impose appropriate conditions on subsequent activities that may penetrate the confining or injection zone.
- 3) Record a notation on the deed of the facility property or on other instruments, which are normally examined during title search, that will in perpetuity provide any potential purchaser of the property the following information:
 - a. The fact that the land has been used to manage hazardous waste.
 - b. The type and volume of the waste injected, the injection intervals and the period over which the injection occurred.
 - c. The addresses of USEPA, Region V.
 - d. Records reflecting the nature, composition and volume of all injected fluids will be maintained indefinitely by US Steel or be turned over to the USEPA, Region V for preservation.

Subsurface will provide a calculated radius of the final plume.



RECEIVED

DEC 30 2009

UIC BRANCH
EPA REGION 5

LETTER OF TRANSMITTAL

TO: Ms. Lisa Perenchio

U. S. EPA Region 5

Underground Injection Control

77 West Jackson Boulevard (WU-17J)

Chicago, Illinois 60604-3590

DATE: 12/29/2009	JOB NO.: 70A6378
ATTENTION: Lisa Perenchio	
RE: Report of Well Closure and Post-Closure Operations - U.S. Steel Corp. - Waste Pickle Liquor Well No. 2	

WE ARE SENDING YOU

☒ Attached☐ Under separate cover via the following items:☐ Contract Documents☐ Purchase Order☐ Waiver of Lien☐ Laboratory Analysis Report☐ Certificates of Insurance☒ Copies of Reports☐ Bid Form & Plans☐ Other - _____

COPIES	DATE	NO.	DESCRIPTION
2	12/29/09	70A6378	Reports of Well Closure - U. S. Steel - Well No. 2

THESE ARE TRANSMITTED as checked below:

☐ For Approval☐ Sign and Return☐ For Your Use☐ Approved As Noted☒ For Review and Comment☐ As Requested☐ Approved As Submitted☐ Returned For Corrections☐ Other: _____**REMARK:**

SIGNED: _____

Richard W. Schildhouse
Senior Engineer

BACKGROUND INFORMATION FOR ANALYSIS OF PRESSURE FALL-OFF TEST

FACILITY NAME 0 USS - Midwest operation		OPERATOR 0 United States Steel Corp	
Well Name 0 USS - WPL Well No. 2		USEPA Permit Number IN-1270 1W-0006	State IN
Test Date 9/24/09			

GEOLOGICAL DATA

POROSITY, decimal	NET PERMEABLE THICKNESS, ft.	VISCOSITY, cp.	COMPRESSIBILITY, per psi
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WELL AND OPERATION DATA

WELL RADIUS, ins. 5.125' 0.000	PRETEST FLOW RATE, gpm	INJECTATE TEMPERATURE, deg.F	KB Elevation, ft 13' 0
Gauge Depth, ft	PRETEST FLOW TIME, hrs.	INJECTATE SPECIFIC GRAVITY	Test Depth for Comparison, ft 2,700'

TEST DATA

FLOW RATE, gpm 0	INITIAL PRESSURE, psi	FINAL PRESSURE, psi	TO SUPPORT FULL COLUMN, psi
TEST LENGTH, hrs.	INITIAL GRADIENT, psi/ft.	FINAL GRADIENT, psi/ft.	FINAL FLUID LEVEL, ft.

REMEMBER

1. Injection of normal injectate at normal rate is preferred. —
2. Please compare data in your records to those in the shaded cells. If there is a difference, be sure the correct information is noted.
3. Please submit an up-to-date well schematic

Performed ambient reservoir pressure monitoring rather than fall-off testing.

RECEIVED

FEB 26 2009

UIC BRANCH
EPA REGION 8